

Z1000U

HVAC MATRIX DRIVE: MERGING GREEN WITH TECHNOLOGY

Add significantly to your green initiative with the Z1000U HVAC Matrix Drive, the product that goes beyond conventional drive performance by combining excellent low harmonic levels, input power factor and energy saving capabilities.

The Z1000U HVAC Matrix drive provides extremely low harmonic distortion in a space-saving design, along with the same HVAC-specific features available in our standard HVAC family of drives. This single-component solution achieves excellent low distortion levels, completely without the need for additional countermeasures such as passive filters or multi-pulse arrangements.

Unlike conventional drives, Yaskawa's Matrix technology creates a variable output by switching directly from the input power, eliminating the DC bus. In addition to providing outstanding harmonic performance, the Z1000U also provides the same user experience for those already familiar with commissioning and maintaining Yaskawa's family of HVAC drives.

Z1000U PRIMARY FEATURES & BENEFITS

- Low Input Distortion Across a Wide Load and Speed Range
- Helps to Assure Compliance with IEEE 519 (< 5% THD)
- Eco-Mode to Achieve Near Across-the-Line THD
- High Efficiency Design Provides Extra Energy Savings as Compared to Other Low Harmonic Solutions
- Near Unity True Power Factor at Full Load
- 0.98 Displacement Power Factor Throughout Entire Load and Speed Range
- Integrated Input Fusing Provides 100 kA SCCR
- Integrated C2 EMC Filter
- Compact Design
- High Reliability with an MTBF of 28 Years
- Embedded BACnet Communications (BTL Certified)
- Embedded Real Time Clock for Event Stamping
- High Carrier Frequency (Low Motor Noise) Capability
- 0-400 Hz Output Frequency
- 120% Overload for 60 Seconds
- Motor Auto-tuning
- Multi-language LCD Display, with Hand/Off/Auto and Copy function
- DriveWizard® HVAC Software
- Embedded Timer Functions for Starting, Stopping and Speed Changes
- Start into Spinning Load (Speed Search)
- Both Induction and Permanent Magnet Motor Control



208-240 V Power Range

- 10 - 100 HP

380-480 V Power Range

- 7.5 - 350 HP

Ambient Operating Temp

- -10°C to 50°C (14°F to 122°F)

Certification

- UL, CSA, CE, RoHS

Standard I/O

- (8) Multi-function digital inputs
- (3) Multi-function analog inputs
- (3) Multi-function relay outputs
- (2) Multi-function 0-10 VDC or 4-20 mA analog outputs
- (1) Fault relay

Communications Options

- Embedded: BACnet, Metasys N2, Siemens APOGEE FLN and Modbus/Memobus
- Optional: LonWorks and EtherNet/IP

Available Options

- Bypass
- Configured
- UL Type 1 Kit
- Redundant

Z1000U RATINGS AND SPECIFICATIONS

DIMENSIONS & SPECIFICATIONS

Open Chassis (IP00)

208 - 240 V Class			Dimensions in mm (in)				Weight in kg (lb)
Model: CIMR-ZU2E□	Amps	HP 240V (208V)	Fig. No.	H	W	D	
0028AUA	28	10 (7.5)	1	480 (18.89)	250 (9.84)	360 (14.17)	21 (46)
0042AUA	42	15 (10)		33 (73)			
0054AUA	54	20 (15)		36 (79)			
0068AUA	68	25 (20)		36 (79)			
0081AUA	81	30 (25)	2	816 (32.12)	264 (10.39)	450 (17.71)	63 (139)
0104AUA	104	40 (30)		63 (139)			
0130AUA	130	50 (40)		63 (139)			
0154AUA	154	60 (50)	3	990 (38.97)	415 (16.33)	403 (15.86)	115 (254)
0192AUA	192	75 (60)		115 (254)			
0248AUA	248	100 (75)	4	1132 (44.56)	490 (19.29)	450 (17.71)	181 (389)

480 V Class			Dimensions in mm (in)				Weight in kg (lb)
Model: CIMR-ZU4E□	Amps	HP	Fig. No.	H	W	D	
0011AUA	11	7.5	1	480 (18.89)	250 (9.84)	360 (14.17)	21 (46)
0014AUA	14	10					
0021AUA	21	15					
0027AUA	27	20					
0034AUA	34	25		650 (25.60)	264 (10.39)	420 (16.53)	33 (73)
0040AUA	40	30					
0052AUA	52	40					
0065AUA	65	50	2	816 (32.12)	264 (10.39)	450 (17.71)	63 (139)
0077AUA	77	60					
0096AUA	96	75	3	990 (38.97)	415 (16.33)	403 (15.86)	115 (254)
0124AUA	124	100					
0156AUA	156	125					
0180AUA	180	150	4	1132 (44.56)	490 (19.29)	450 (17.71)	181 (399)
0216AUA	216	175					
0240AUA	240	200					
0302AUA	302	250					
0361AUA	361	300	4	1132 (44.56)	695 (27.36)	450 (17.71)	267 (589)
0414AUA	414	350					

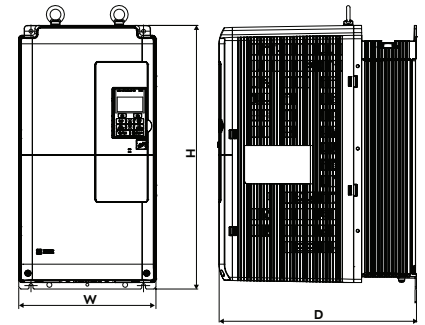


Figure 1

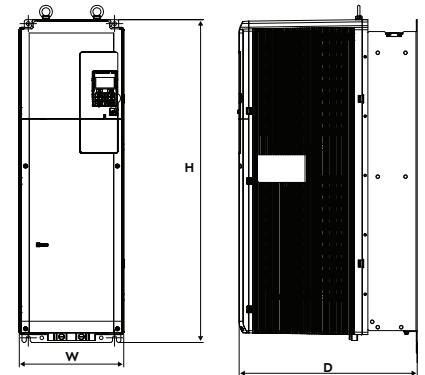


Figure 2

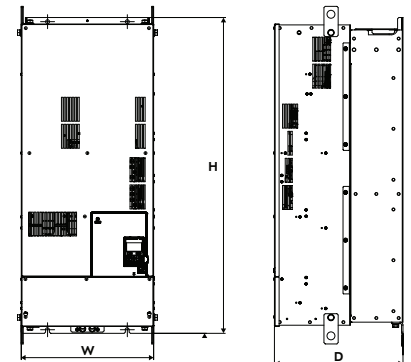


Figure 3

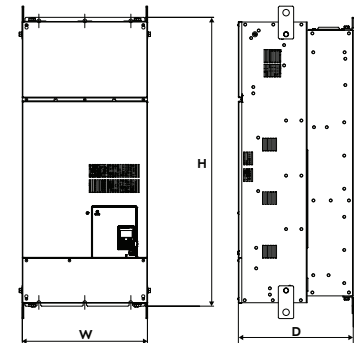


Figure 4



**Z1000U MATRIX™
INNOVATION**

Improved Energy Efficiency with
Direct Conversion from AC-to-AC

CONSULTING - SPECIFYING
engineer

2016
PRODUCT OF THE YEAR | Most Valuable Product

IT'S PERSONAL

YASKAWA

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